

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

Please replace the paragraph on page 3, beginning at line 14, with the following:

The main body 10 has an upper end, a lower end, a vertical central axis and an inner space that is ~~shaped like an inverted obtuse cone~~ of an inverted obtuse cone shape with a comparatively wide entrance 12 on the upper end of the main body 10 and a comparatively narrow exit 13 on the lower end of the main body 10. An air guiding plate 11 of helical shape is laid in the inner space of the main body 10, being attached to an inner periphery thereof.

Please replace the paragraph on page 4, beginning at line 12, with the following:

The fan 50 is mounted on the entrance 12 or on the exit 13, controlling flow rate and speed of air passing through. Air entering the inner space of the main body 10 through the entrance 12 and passing the electrode array 20, due to the inverted conical shape of the inner space of the main body 10 and the helical shape of the air guiding plate 11, develops a whirling movement. In the whirling movement of the air, particles drift away from the central axis according to masses and charges thereof, so that a correlation between sizes of particles and distances thereof from the central axis results. Adjusting the aperture 313 of the adjustable opening 30 allows to block particles beyond a certain distance from the central axis from being collected. Additional varying of the gap between the adjustable opening 30 and the precipitating device 40 optimizes controlling of the sizes of collected particles. The bias high voltage applied to the precipitating device 40 results in particles to be adsorbed on the cap 41. The precipitating device 40 is ~~shaped like a~~

~~cylinder~~ of cylinder shape, having an axial wire connected to high voltage, for adsorbing of particles.

Please replace the paragraph on page 5, beginning at line 12, with the following:

Referring to Fig. 6, in a second embodiment of the present invention, the main body 10 has an inner space that is ~~shaped like a cylinder~~ of cylinder shape, simplifying the structure, with an air guiding plate 11a of helical shape laid out close to the periphery of the inner space.